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NEW SPECIES OF COLEOPTERA FROM CALIFORNIA¹

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The Coleoptera dealt with in this paper are some of the undescribed species which have been recently secured.

FAMILY RHIPICERIDAE.

Sandalus cribricollis n. sp.

Black with rufous elytra, the apices blackish, subopaque. Head very closely, deeply, cribrately, and moderately coarsely punctured and clothed with long coarse grayish-brown hair. Prothorax slightly less than three-fourths as long as broad, anterior margin straight and three-fourths breadth of base, sides arcuate and gradually convergent anteriorly, hind angles blunt, the disc with evident median longitudinal sulcus and very coarsely, deeply, and cribrately punctured with finer punctures intermixed and pubescent like the head. Scutellum depressed anteriorly and closely, rather finely punctured. Elytra very coarsely, deeply punctured, the punctures more or less arranged in rows and forming a very definite reticulation, and with several vague longitudinal carinae. The tarsi rather slender, the joints feebly emarginate, and the lamellae small and inconspicuous. Length 19 mm., breadth 6 mm.

This species, though superficially looking like one of the bicolored phases of *S. niger* Koch., belongs nearer *S. californicus* Lec. because of the narrow tarsi, but it can be readily separated from this, as well as from all our other species, by the very coarsely and cribrately punctured head and prothorax.

¹ This paper is the sixth of a series of short papers dealing with the Coleoptera of this country to be published by me in this journal. The last one appeared in 1920.

Type, a unique male in my collection, captured near Loyalton, Sierra Co., California, September, 1918, by Mr. E. Ralph de Ong, who very kindly presented it to me.

FAMILY BUPRESTIDAE.

Chrysobothris bacchari n. sp.

Size and form of *C. mali* Horn, subdepressed, upper surface brassy, beneath more cupreous, antennae and margin of clypeus somewhat greenish. Head with front slightly convex, with two vague callosities between the eyes and a distinct Y-shaped smooth area on vertex; clypeus emarginate, the margins evenly arcuate; the antennae gradually narrowed toward tip, third joint almost as long as the next two, subcylindrical and but little dilated externally, the fourth distinctly longer than broad, the fifth just perceptibly so, the following transverse. Prothorax twice as wide as long, sides straight and almost parallel at middle, oblique and convergent anteriorly and posteriorly; disc moderately convex, sparsely and finely punctured, with a shallow though well defined median longitudinal sulcus, its boundaries slightly elevated and transversely strigose, the sides anteriorly rather deeply longitudinally impressed. Elytra with humeri rounded, the sides obliquely convergent in front of the same, almost parallel at middle and slightly arcuate and convergent to posterior angles which are separately rounded, the apical margin finely serrulate; disc with four costae on each elytron, a sutural vague in front but sharply defined at middle and behind and gradually curving away from suture posteriorly, a median broken up into three portions by two shallow foveae, the basal part short and irregular, the second distinct and straight occupying the middle one-third of elytra, and apical also distinct but slightly curved, more distant from the suture, and not reaching apex of elytra, a distinct humeral costa extending from near the long humeral umbone and obliquely curving inwards to beyond the middle of the elytra where it ends at a large fovea and a submarginal which is less clearly defined and runs along the sides from near the umbone to close to the apex of the median costa, the depressions rather finely and sparsely punctured inwardly and more closely punctured and scabrous outwardly. Body beneath rather coarsely, closely punctured anteriorly, the abdomen more finely punctured and strigose; prosternum lobed at middle in front and finely sparsely pilose, last ventral with margin serrulate. Anterior femora with a broad obtuse tooth, serrulate on outer margin. Length 9 mm., breadth 4 mm.

♂. Front of head with punctuation sparse and fine in the center, coarser on margins and densely clothed with suberect white pile; anterior tibiae abruptly dilated at apex, the dilatation rounded inwardly and emarginate before apex; last ventral segment deeply semicircularly emarginate at apex, the last dorsal coarsely punctate and notched at apex.

♀. Front of head with punctuation moderately coarse and regularly distributed and but sparsely pilose; anterior tibiae moderately arcuate, gradually wider to tip; last ventral segment with shallow semicircular notch at apex, last dorsal coarsely punctate and blunt at apex.

For a number of years this species has been known to a number of us, and though always associated with *C. mali* Horn, to which it is undoubtedly related, was felt to be distinct. We, however, did not have sufficient material nor field data to warrant us in separating it until recently, when, through the efforts of Mr. H. E. Burke, a large enough series of specimens was secured to enable us to definitely fix its status. It is of a uniform brassy color like *C. texana* Lec., whereas *mali* is generally of a deep purplish bronze color with the front greenish and sides of prothorax, elytral foveae and apices cupreous; the head is more convex, the clypeus less deeply and acutely emarginate, and the front less coarsely and closely punctured; the median prothoracic sulcus is well defined, whereas it is shallow and poorly defined in the other; and the elytral costae are distinctly elevated and defined in contrast to those of the other, where the general surface is also very coarsely, evenly, and closely punctured. In the male of *bacchari* the prosternum is sparsely clothed with pile as in the female, while in *mali* it is clothed with long white pile, and the dilated apex of the anterior tibiae is evenly enlarged, while in *mali* it is not only less developed, but has the anterior portion notched.

A series of twenty specimens has been seen and from the following localities: Fairfax, Marin County, June 24, 1908; Los Gatos, June 27, 1918, and July 7, 1917; Laurel, May and June, 1917, all in California; and Sabino Canyon, Arizona, September, 1917. The Fairfax specimen was collected by myself, the other California specimens collected or reared by Mr. H. E. Burke and Mr. F. B. Herbert, and the Arizona specimens by Mr. Geo. Hofer. The California specimens submitted by Mr. Burke were all bred from *Baccharis pilularis* D.C., the "Chaparral Broom" a very common and worthless shrub of the family Compositae, and the Arizona

material from a closely related species, *Baccharis sergiloides*. There is some variation as to size, the Arizona specimens being uniformly larger, the largest 12 mm. in length, and with a tendency to have the head somewhat cupreous. The sculpturing also varies to a minor degree, particularly as to the length or interruptions of the median and humeral elytral costae.

Type male and allotype female, in my collection, from Los Gatos, California, June 27, 1918, reared by Mr. H. E. Burke from *Baccharis pilularis* D.C. Several designated paratypes are in the collection of Mr. Burke and myself.

Chrysobothris lineatipennis Van Dyke.

This insect, I now believe should rank as a distinct species, not as a variety of *C. mali* Horn. Within recent years a very large series of the latter has been taken and from many localities. The specimens show a great degree of constancy of structure. Even those from Southern California are like the more northern specimens and not like *lineatipennis*. Mr. Burke fully agrees with me in this matter.

Agrilus sierrae n. sp.

Moderately robust, a dull brassy bronze, very finely sparsely pilose without pubescent spots either above or beneath but with pro- and mesosternum densely clothed with erect, white pile. Head, from above, concave, a moderately deep impression from the occiput to the clypeus, rather roughly granulate-strigose, sparsely pubescent; clypeus broadly emarginate anteriorly and with rounded lobes laterally; antennae piceous, serrate from the fifth joint, reaching the middle of the prothorax. Prothorax very little wider than long, slightly narrowed posteriorly; sides feebly arcuate in front, oblique and barely sinuate to hind angles, which are rectangular and with a straight, well-defined carina; the lateral margin sinuate and suddenly depressed anteriorly, forming a very acute angle with the anterior margin; the disc convex, with a vague median longitudinal impression, lateral oblique impression distinct, surface closely transversely strigose; anterior margin distinctly lobed at middle. Scutellum transversely carinate. Elytra feebly sinuate at sides and only slightly broader posteriorly, apices rounded and very finely serrulate; the disc slightly flattened, with a vague channel each side of suture, basal foveae feeble, surface moderately closely but not roughly imbricate and without pubescent spots. Body beneath more shining than above,

moderately coarsely closely punctured in front and finely sparsely over abdomen, the prothoracic submarginal line sinuate; pygidium sparsely punctate, not carinate; claws broadly toothed. Length 6 mm., breadth 2 mm.

♂. Front of head with longitudinal depression only, prosternal pile long, dense, and erect, the first two ventral segments feebly impressed along the median line.

♀. Front with crescentic, transverse impression in addition to median, the prosternal pile less long and more depressed, the ventral segments not impressed.

This species belongs next to *Agrilus addendus* Crotch, in all probability is an offshoot from the same stock, looking very much like the phase of that species which lacks the pubescent spots. It is distinct, though, and in several particulars, for instance, in having the front of the head much less convex, the clypeal emargination shallow and broadly rounding off at the sides in contrast to one with more or less angular boundaries, the prothorax with its anterior margin less lobed, the lateral margin more sinuate and meeting the anterior margin at a more acute angle, the prosternum quite pilose in both sexes, and the apices of the elytra with very much more minute serrulations.

Type male, allotype female, and one paratype in my collection, captured in Mariposa County, California, June 12, 1914, by Mr. F. W. Nunenmacher.

FAMILY PTINIDAE.

Hedobia semivittata n. sp.

Oblong, elongate, black with rufous areas beneath the pilose patches on the elytra, and clothed with short recumbent cinereous hair which is uniformly distributed over the head, legs and under side of body, covers the sides of prothorax and forms a distinctive design on the elytra. Head rather coarsely granulate, without median smooth line, front more than twice as wide as vertical diameter of eyes; eyes but moderately prominent; antennae reaching middle of elytra, third joint slightly longer than fourth, the tenth twice as long as wide. Prothorax about as wide as long, slightly constricted behind apex, sides evenly arcuate posteriorly, base broader than apex, disc distinctly elevated at middle and compressed posteriorly forming a market crest that is truncate at apex and sparsely clothed with short brown hair, surface rather coarsely, somewhat closely punctured. Scutellum elongate, rather suddenly narrowed posteriorly (evidently longer and narrower than in

granosa) and densely clothed with white pile. Elytra not quite twice as wide as prothorax, fully twice as long as wide, sides parallel, surface confusedly granulate punctate, with rows of hardly evident tubercles, and with the cinereous pile arranged on the disc as follows: as an illy defined sutural vitta extending to declivity, three well-defined but interrupted vittae without this, also extending to the declivity, and in a broad band at the sides, the apex black and partly denuded, partly clothed with black or brown hair except at margin where the white hair is again evident; the margin finely serrulate posteriorly. Beneath moderately, closely, coarsely punctured, fifth ventral truncate-emarginate at apex and with triangular impression in front of it. Tibiae granulate along outer margin, first tarsal joint of middle and hind legs as long as following four united. Length 6 mm., breadth 2.75 mm.

This species is readily separated from our two other species by being generally longer and by having a different type of ornamentation, a vittate arrangement of the elytral pubescence as contrasted with the balteate, found in the others. It is interesting to note that the three American species of *Hedobia* are Californian, the remainder mainly Holarctic, a peculiarity of distribution shared by many of our genera such as *Brychius*, *Dascillus*, the typical *Rosalia*, and so forth. In this connection, I also wish to report that the larvae of *Hedobia granosa* Lec., which breed very commonly in old live oak twigs in the San Francisco Bay region, spin a loose cocoon, very similar in appearance to those made by the weevils, *Hypera* and *Phytonomus*.

Type, a unique in my collection, beaten by myself from black oak, *Quercus kelloggii* Newb., in the Yosemite Valley, California, May 26, 1921.

***Ernobius caudatus* n. sp.**

Moderately robust, elongate, rufo-piceous, the prothorax and suture at apex lighter, uniformly clothed with rather short, sparsely placed, and recumbent grayish-yellow pubescence. Head granulate-punctate; eyes prominent in male, hemispherical, less prominent in female; width of front in male twice vertical diameter of eyes, greater in female; antennae eleven jointed, two-thirds length of body in male, shorter in female, joints 3, 4, 6, and 8 nearly equal, 5 and 7 a little longer, 6 to 8 more than twice as long as wide, 9 slightly shorter than three preceding united. Prothorax as wide as elytra, about a third wider than long, sides moderately arcuate and strongly mar-

gined, front angles rounded, surface densely granulate-punctate; disc with small crista at middle near base, and depressions on either side midway between it and sides. Elytra about twice as long as broad, the apices distinctly produced at suture and subacute, less prominent in females, punctuation similar to that of pronotum. Beneath rather coarsely, closely punctured in front, finely and sparsely over abdomen. Length 4 mm., breadth 1.5 mm.

Type male and allotype female in my collection, beaten by myself from Sargent's Cypress, *Cupressus sargentii* Jepson, on Cypress Ridge, Marin County, April 2, 1922. I have also twelve other specimens taken at the same place, at various times during the months of April and May.

This species belongs in the group with *mollis* Linn., *socialis* Fall, *punctulatus* Lec., *cupressi* Van Dyke, and the recently described *conicola* Fisher,² as defined by Fall,³ but differs from them, as well as from all other species with which I am acquainted, by having the elytra definitely produced at the apical suture into subacute dentations. In addition, it differs from *socialis* by being distinctly smaller and more piceous; from *punctulatus* by color, shorter pile, and by the joints 6-8 of the antennae each being distinctly twice as long as broad; and from *cupressi* by being much smaller and by having the ninth antennal joint only slightly shorter than the three preceding, it being shorter than the two preceding in the latter. It is the third California species to be described as from our species of cypress, *cupressi* Van Dyke⁴ and *conicola* Fisher being the others. As regards *conicola* Fisher, I am inclined to believe that it is synonymous with my *cupressi*.

FAMILY BOSTRICHIDAE.

Polycaon granulatus n. sp.

Elongate, subcylindrical, opaque, black except last three

² "Five New Species of Ptinid Beetles," by W. S. Fisher, No. 2271 Proc. U. S. Nat. Mu., Vol. 55 (1919), pp. 296-297.

³ "Revision of the Ptinidae of Boreal America," by H. C. Fall, Trans. Am. Ent. Soc., Vol. XXXI (1905), p. 140.

⁴ "Some New Beetles in the Families Cantharidae (Lampyridae) Ptinidae, and Scarabaeidae, from Western North America, with Notes Upon Others," by Edwin C. Van Dyke, BULL. BROOKLYN ENT. SOC., Vol. XIII (1918), pp. 6-7.

joints of antennae and tarsal claws which are castaneous, and lateral margins of elytra which are indistinctly rufescent, clothed above with a short, black prostrate pile interspersed with a scattering of longer erect hairs, and beneath with a cinereous and finer prostrate pubescence. Head including the eyes broader than prothorax, front convex and granular, the clypeal margin broadly and shallowly emarginate; eyes very convex, each a complete hemisphere and together over one-half breadth of head between them; antennae ten-jointed, the last three enlarged, forming an open club which is longer than the rest of the antennae. Prothorax slightly broader than long, sides broadly rounded anteriorly, subsinuate posteriorly; disc convex, granular, median longitudinal line slightly impressed, the anterior transverse impression shallow; the propleurae perceptibly convex. Elytra slightly more than four times as long as prothorax and two-thirds broader, quite convex and decidedly granulose, without carinae or tubercles, the apices of each elytron in male incised and bidentate, in female simple. Front tibiae moderately robust, serrate externally, straight and without basal internal excavation. Second and third tarsal joints securiform. Male, length 10 mm., breadth 3.5 mm.; female, length 8 mm., breadth 2.5 mm.

This species superficially resembles a small female of *Polycaon stoutii* Lec., and was in fact taken to be a very small phase of the same for some time. It differs, however, from that species in having the antennae ten-jointed instead of eleven, the eyes more convex and prominent, the clypeus not depressed anteriorly, the body above more definitely granulose than even the most roughened female of the other, and the males with the apices of the elytra incised and bidentate, whereas in the other they are simple in both sexes. *P. stoutii* Lec. is also generally much larger and more robust, the smallest specimen that I have seen of this being 11 mm. in length. *P. granulatus* agrees with *P. megalops* Fall as regards the antennae, eyes, and color, but differs in being granulose over the entire upper surface, not with the elytra shining and punctate, and in having the front tibiae straight, not bowed, and incised at base.

Lesne, the latest authority to review the Bostrichidae, recognized two genera instead of the single genus *Polycaon*. *Polycaon* Cast. he defines⁵ as having the body depressed, the anterior tibiae not

⁵ Lesne, P., "Révision des Coléoptères de la famille des Bostrichides." *Anns. Soc. Ent. France*, Vol. LXV (1896), p. 111.

excavated and bowed at base, the second and third tarsal joints not greatly enlarged apically, the propleurae convex, the elytra simple at apex and without carinae and tubercles. But two of our species, *P. stoutii* Lec. from California and Arizona and *P. punctatus* Lec. from Lower California, would be included. All of our other species would go into the resurrected genus *Heterarthron* Guer., characterized by having the body cylindrical, the anterior tibiae very robust, excavated and bent at the base, the third tarsal joints securiform, the propleurae flat or concave, the elytra often incised at the apex and bidentate or with carinae and tubercles on the declivity. *P. granulatus* agrees with *Polycaon* in having the anterior tibiae not excavated and bowed at base, the propleurae convex, and the elytra without carinae and tubercles on the declivity, and with *Heterarthron* in having the body cylindrical, the second and third tarsal joints securiform, and the elytra in the male incised and bidentate at the apex. It would thus link up the two; in other words, make unwise the retention of *Heterarthron* as a genus.

Type male and allotype female, collected September 19, 1916, and March 8, 1916, and two male paratypes, collected September 3 and September 9, 1916, in my collection. They were captured at Carmel, Monterey County, California, by Mr. L. S. Slevin and kindly presented to me.

***Dinoderus pubicollis* n. sp.**

Cylindrical, moderately short, somewhat shining, piceous, antennae rufous and tarsi rufo-castaneous. Head with long fulvous hairs about mouth-parts and on basal joints of antennae, regularly rather closely and deeply punctate and strigose posteriorly; the antennae eleven-jointed, the first joint large, the second almost spherical and narrower and about one-half length of first, the first and second joints of club transverse, the last about as long as broad. Prothorax as broad as long, the anterior half with six concentric rows of sharp rasplike teeth, the individual teeth more or less united and more prominent in front, the area between the rows rather finely, closely and ocellately punctate and pilose, the hair fulvous and semi-erect, the posterior half distinctly and moderately, closely punctate with ocellate punctures, the punctures somewhat larger than in front and slightly asperate on disk, the sides with long fulvous hair, the lateral margin distinct and just reaching the end of the anterior row of rasps, the hind angles well rounded. Elytra slightly less than twice as long as prothorax and not quite twice as long as wide; coarsely, mod-

erately densely, regularly and ocellately punctured, the punctures larger than on pronotum and with slight tendency to form in rows near suture; the surface sparsely clothed with short erect fulvous setae, more numerous on declivity, the suture slightly elevated on declivity and with faint sulci on either side; the lateral margin at first obliquely curving away from the base, then horizontal at middle and again gradually and obliquely curved downwards to the apex. Beneath rather finely, sparsely punctate anteriorly, more finely and closely on the abdomen, subopaque, and pilose. Length 4 mm., breadth 1.5 mm.

The species differs from *D. brevis* Horn, the only other species from this country in the genus as it is now restricted by Lesne,⁶ by being considerably larger, proportionally longer, with eleven-jointed antennae instead of ten, by having the lateral margin of the prothorax reaching the first row of rasps, the prothorax more distinctly pilose anteriorly and laterally, and by having the lateral margin of the elytra obliquely retreating from the base and forming an angle where it meets it, the sides of the elytra near the base therefore much narrower. Its only close relative is apparently *D. nitidus* Lesne, from the Marquis Is., a species which possesses also eleven-jointed antennae and has the lateral thoracic margin reaching the anterior rasps. It, however, differs from this by possessing an aural pilosity, ocellate punctures on both head and prothorax, and a distinct pubescence of the sides of the prothorax. It can not be the unrecognized *D. ocellaris* Steph. either, for the elytral punctures are not "disposed in striae" and the antennae piceous.

Type and nine paratypes in my collection, all collected by myself at Los Angeles, California. They were secured many years ago and, as I remember it, dug out of some mesquite cord wood stored in our cellar for fire wood. Just where the wood was cut, I could not say.

FAMILY CLERIDAE

Thanasimus undatulus Say (not *undulatus* Say).

Upon examining my series of this species and its associates, I have come to the conclusion that it ranges throughout a greater

⁶ Lesne, P., "Révision de la famille des Bostrichides, 2e Mémoire, Dinoderinae," Anns. Soc. Entom. France, Vol. LXVI (1897), p. 319.

area than we formerly believed, and that it includes among its races, or subspecies, *T. monticolae* Wolcott and *T. rubriventris* Lec., as well as those usually given. Intermediate specimens show very distinctly that *T. monticolae* Wolcott grades into *T. undatulus* Say on one side and into *T. rubriventris* Lec. on the other. I would list them as follows:

T. undatulus Say, found from Alaska to eastern British Columbia and the Lake Superior Region.

T. undatulus var. *nubilus* Klug, found from Alaska to the Lake Superior Region.

T. undatulus var. *melanocephalus* Chev., found in Nova Scotia and New Hampshire.

T. undatulus var. *monticola* Wolcott, found throughout Western British Columbia and Washington and along the high Cascades and Sierra Nevada to Mt. Whitney.

T. undatulus var. *rubriventris* Lec., found from the northern California line down the coast as far as Monterey.

The species in all its varieties is mainly to be found on the true firs, *Abies*; true spruces, *Picea*; Douglas fir, *Pseudotsuga*; and possibly the hemlock, *Tsuga*. It is rarely found about the pines.

Phyllobaenus californicus n. sp.

Slender, parallel; black, posterior portion of first and intermediate antennal joints, basal areas of tibiae, and first tarsal joint of hind legs, somewhat rufous; moderately shining, with sparse, erect hairs and a silken white pubescence forming an indistinct design on the elytra. Head moderately, coarsely, densely, and shallowly punctured, eyes large but less projecting than in *P. dislocatus* Say and with a very deep triangular excavation on inner side (much larger and deeper than in *dislocatus*) that is clothed with white hair. Prothorax slightly broader than long, sides obtusely subangulate behind the middle, disc flattened, with two inconspicuous tubercles anteriorly, and similarly punctured to the head. Elytra as broad at base as prothorax, slightly wider posteriorly; disc somewhat flattened, with a semicircular depression at basal third, extending backwards from within the umbones, and two slightly oblique lateral depressions, one at the middle, the other posteriorly, an indistinct ridge bounding the median depression within, surface coarsely, deeply, and closely punctured, the punctures more or less regularly arranged in rows, the white pubescence

chiefly evident along the suture, in the semicircular depression, on the oblique ridge between the median and posterior impression, and apically. Anterior tibiae acutely and irregularly serrulate on outer side. Body beneath sparsely and finely punctured, and sparsely hairy. Length 6.5 mm., breadth 2.5 mm.

This species is no doubt quite closely related to *P. merkei* Horn, but it differs from that in lacking a yellow spot on the elytra, in having no distinct costa, and by the elytral punctures being fairly regularly arranged. This species, like *merkei*, is quite unlike *dislocatus*, and, as stated by Dr. Horn, is strongly suggestive of the Mexican *Epiphloeus setulosus* Thoms. The genus *Epiphloeus* has, however, eleven joints to the antennae, whereas *Phyllobaenus* has but ten.

Type, a unique in my collection, captured in Yosemite Valley, California, May 18, 1921, by Miss Alice Riedy and by her kindly presented to me.

FAMILY CERAMBYCIDAE.

Semanotus cupressi n. sp.

Rufous, antennae, base of femora, tibia, and tarsi black, with much of the meso- and metasternal area darkened, and the elytra a deep blue; sparsely clothed with long erect hair. Head sparsely and finely punctured in front, closely and coarser behind; antennae at least two joints longer than body, all joints long and quite cylindrical, first joint large and coarsely, sparsely punctured, second joint twice as long as broad, third considerably longer than fourth, fourth slightly shorter than fifth, the last palpal joint dilated and almost squarely truncate at apex; eyes deeply emarginate. Prothorax slightly broader than long, with sides evenly rounded, slightly constricted at apex and oblique and vaguely sinuate towards base, the disc with median and two later somewhat semicircular callosities on basal half, elsewhere sparsely punctured, somewhat rugose at sides. The elytra slightly broader at base than prothorax, almost three times as long as broad, the sides straight and slightly tapering backwards, the apices conjointly rounded; the disc very coarsely, closely, irregularly, and cribrately punctured, a few very short and inconspicuous hairs clothing the surface in addition to the long ones. The prosternum distinctly separating the front coxae though neither broad nor triangular. The femora very decidedly clavate, the shanks narrow and long. Length 9 mm., breadth 2.5 mm.

In the female, the antennae reach but three-fourths the length of the body, the prothoracic callosities are less marked than in the male and the punctures finer and closer, the posternal process broader, and the legs uniformly rufous or with the tibia and tarsi somewhat dusky.

Type male and allotype female, in my collection, collected by myself from dying twigs of Sargent's Cypress, *Cupressus sargentii* Jepson, on Cypress Ridge, Marin County, California, April 6, 1921. I have also designated several other specimens as paratypes, one of which is to go to the U. S. National Museum, one to the California Academy of Sciences, and several to remain in my own and Mr. J. O. Martin Collections. A series of forty-three specimens has been examined, all taken at the same locality and on various dates in April and May. The species varies somewhat in size, the smallest seen being under 5 mm. in length and the largest fully 12 mm. It is a very attractive insect and in color and general appearance looks much like several of our species of *Phymatodes*, as *P. amoenus* Say and *P. blandus* Lec.

The genus *Semanotus* of Mulsant was established for certain relatives of *Hylotrupes* which differed primarily from that by having a narrower prosternum. The European *S. undatus* Linn. is, I believe, the genotype, and this I have carefully compared with our *nicolas* White,⁷ of which *litigiosus* Casey is without doubt a synonym, and find no differences whatever more than of specific value. As regards the genus *Hylotrupes*, I agree with Col. Casey and most of the recent European authors that it should have all of the species excepting the type, *H. bajulus* Linn., removed from it, but I do not think that there was any need for establishing new genera like *Anocomis*⁸ and *Hemicallidium* for their reception. The first, as I have shown above, I consider an absolute synonym of *Semanotus*. *H. amethystinus* Lec., the genotype of *Hemicallidium*, I have carefully compared with *Sympiezocera japonica* Bates and find that it has the same type of antennae, palpi, pro- and mesosternum, and other characters of generic value, and in fact, except for color, could hardly be separated. I would therefore place the genus *Hemicallidium* as a synonym of *Sympiezocera*, which latter is now placed according to the latest European cata-

⁷ Cat. Col. Br. Mu., VIII, p. 321.

⁸ Memoirs of the Coleoptera, III (1912), by Thos. L. Casey, p. 271.

logue, and I consider justly so, as but a subgenus of *Semanotus*. The following American species, *ligneum* Fab. and *nicolas* White (*litigiosus* Casey), I would consider as typical members of the genus, and *amethystinus* Lec. and *juniperi* Fisher as members of the subgenus *Sympiezocera*. My new species, *Semanotus cupressi*, does not belong with the more typical forms nor in the subgenus *Sympiezocera*, but in another group along with the Japanese *S. rufipennis* Mots., which differs primarily by having the terminal palpal joints truncate, the antennae quite delicate and the joints cylindrical, the prothorax quite evenly rounded on the sides, and the legs markedly clavate, as in *Hylotrupes bajulus* Linn., but differing from the last in having the elytra quite heavily and closely punctured. A new subgenus might be created, but it would seem best to wait for that until the time when the entire Holarctic Calidiini can be studied and revised.

Semanotus nicolas White is widely distributed throughout the higher mountains of the west as well as the boreal regions of this continent and breeds in the true firs and perhaps also the true spruces. I have specimens in my collection from various parts of the Sierras, from Mt. Rainier, Washington, the Bitter Root Mountains of Montana, and from Rampart, Alaska. There is a great deal of variation both as regards size and color and to a certain degree as to punctuation. The males are generally all black, though I have specimens with the yellow fascia distinctly indicated. The females are as usual black with two yellow fasciae, though I have several Sierran as well as northern specimens that are entirely black and several that have the elytra in great part of an ochre color. I would consider *terminata* Casey as but a phase, an eastward extension of the boreal race. *S. ligneus* Fab. is, as Col. Casey has shown, very different from the preceding. It is widely distributed in this country and breeds only on the various species of cupressine⁹ trees, cedars, cypresses, sequoias, and junipers, and breaks up into a number of races or subspecies, of which I would recognize three or at most four: the typical phase found in Eastern North America and reared from juniper; the var. *parvicollis* Casey from Colorado, probably but a weak phase of the preceding; the var. *ampla* Casey, a well-marked variety confined to the Pacific

⁹ I have here used the term cupressine in a broad way, referring to the order Toxodiaceae as well as the order Cupressaceae. Insects do not seem to separate these as do the botanists.

Coast and reared from various cupressine trees as *Libocedrus*, *Thuja*, *Cupressus*, and *Juniperus*, and very variable as to size and color; and a peculiar phase differing from the last in the fact that the males have the basal third of the elytra orange and the apical two-thirds a bluish black, the females not especially different from the more typical forms. This last variety might be called the variety *sequoiae* n. var., as it breeds exclusively in the coast redwood, *Sequoia sempervirens* Endl. The *S. angusta* Casey is but a weak phase of *ampla* Casey. I have a specimen from Seattle with a basal, a median, and an apical black bar that might prove to belong to a distinctive color race, but do not believe that it should be considered so until we see more material. *S. amethystinus* Lec. and *S. juniperi* Fisher are fairly constant except as regards size and as to a slight variation in the metallic shades of the elytra and breadth and outline of the prothorax in the former. The first breeds in *Libocedrus decurrens* Torr. and the latter in juniper. It is interesting to note in this connection that while *Hylotrupes bajulus* Linn. breeds in both pines and fir, all of the genus *Semanotus*, including the subgenus *Sympiezocera*, of which I have been able to get any records, live either in the firs or in some of the cupressine trees. Of the exotic forms, *Semanotus rufipennis* Mots. was reared by Lewis from fir rails, *Sympiezocera japonica* Bates found "running over decayed Cryptomerias,"¹¹ and *Sympiezocera laurasii* Lucas taken in the cedar forests of Algeria.¹² None seem to be found on pines. This is paralleled by the Buprestid genus *Trachykele*, the various species of which live either in fir or one of the cupressine trees.

***Necydalis acutipennis* n. sp.**

Robust, black, legs rufo-castaneous, elytra rufous, entire upper surface shining, the head and front and sides of prothorax sparsely clothed with a short black upright hair, entire thorax beneath and pleurae more densely covered with short and somewhat yellowish pile, the abdomen subopaque and with but a sparse clothing of minute hairs. Head with frontal longitudinal and fronto-clypeal grooves sharply impressed, the

¹⁰ Longicorn Coleoptera of Japan, by H. W. Bates, *Ann. Nat. Hist.*, Vol. 12, 4 Ser. (1873), p. 198.

¹¹ Longicorn Beetles of Japan, by H. W. Bates, *Journ. Linn. Soc., London, Zoo.*, Vol. 18 (1885), p. 227.

¹² *Ann. Ent. Soc. Fr.*, 1851, Bull., p. CVII.

clypeus slightly reflexed anteriorly, the front densely punctured with moderate and fine punctures intermixed, the clypeus and vertex more coarsely and sparsely punctured, antennal tubercles prominent but without elevated crest; antennae reaching beyond middle of body, third joint one-third longer than fourth and slightly longer than fifth. Prothorax broader than long, 4 mm. x 3.5 mm., the sides strongly tuberculate at middle; the disc with median longitudinal and anterior and posterior impressions deep, the first laterally bounded by large elevated elliptical areas that are very finely and sparsely punctured, the apical and basal areas convex and more closely punctured. Elytra together broader than long, the sutural margin gradually arcuate from base to near apex where distinctly sinuate, the lateral margin also arcuate from base to apex but less curved at middle and meeting the suture at an acute angle at tip, the elytra therefore not truncate but acute behind, the disc very finely and sparsely punctured, with a well-marked longitudinal depression just without the suture and a second, shorter one, near the lateral margin, both posterior and not reaching the base, the apex distinctly angularly reflexed. Abdomen minutely, closely punctured. Legs robust, femora quite clavate, hind tibiae considerably dilated apically and but little curved. Length 22 mm., breadth 5 mm.

Type, a unique female in my collection, captured near Castle Crags, Shasta County, California, July 9, 1921, by Mr. C. L. Fox, and by him kindly presented to me.

The following table will enable it to be readily separated from the other known American species:

1. Elytra without transverse impression near apex and apex not reflexed 3.
2. Elytra with transverse impression near apex and apex distinctly reflexed..... 5.
3. Large and robust species, 22 mm. in length, prothorax robust, with dorsal tubercles, and shining (Santa Barbara, Cal.).
barbarae Rivers.
4. Smaller and delicate species, 15-20 mm. in length, prothorax elongate, subcylindrical, without evident dorsal tubercles and opaque (Eastern States) *mellitus* Say.
5. Antennae long and delicate, upper surface quite smooth and shining, pronotum cylindrical and not sulcate above (Pacific States and Vanc.) *laevicollis* Lec.
6. Antennae robust, pronotum deeply longitudinally sulcate. . . 7.

7. Entire body densely clothed with golden yellow pile, elytra truncate at apex (Cal.) *cavipennis* Lec.
Upper surface quite smooth and shining, elytra acute at apex..... *acutipennis* n. sp.

This species can not be confused with any of our other species, for it is the only one with the apices of the elytra acute.

NEW SPECIES OF TENTHREDINIDAE FROM THE EAST AND MIDDLE WEST.¹

BY ALEX. D. MACGILLIVRAY, Urbana, Ill.

The following new species were in collections received from Mr. F. M. Schott, Wyandanch, New York; Professor J. S. Hine, Ohio State University; and Professor A. L. Lovett, Oregon Agricultural College. They make an interesting addition to our fauna.

Acantholyda modesta n. sp.

Female. Body black with the clypeus, almost connected with two spots above antennae, a quadrangular spot on each frontal orbit, a wedge-shaped mark on each occipital furrow, the interocellar furrow, note-shaped mark from caudo-mesal angle of each compound eye to caudal margin of head, occipital orbits, extending to caudal margin and connecting with note-shaped marks and marks on occipital furrows, median area of mesonotum, mesoscutellum, small adjacent dash of each lateral lobe, metascutellum, margin of prothorax, tegulae, all the sterna, coxae, sterna of abdomen and margin on terga, more or less suffused with reddish, white; antennae with flagellum rufous, about thirty-five segments, first segment of flagellum longer than the next two; legs with femora black above and with a black line below, otherwise rufous; tibiae and tarsi rufous; wings hyaline, veins black. Length 15 mm.

Habitat: Wyandanch, Long Island, New York; F. M. Schott, collector. This species is similar to *marginiventris* Cresson.

Xyela intrabilis n. sp.

Male. Body black; the mandibles and the tegulae yellow; the clypeus, labrum, antennae, and legs dull luteous; head

¹ Contributions from the Entomological Laboratories of the University of Illinois, No. 72.